Sergio Nesmachnow

List of Publications by Citations

149 papers	1,383 citations	17 h-index	32 g-index
167 ext. papers	1,607 ext. citations	1.6 avg, IF	5.47 L-index

#	Paper	IF	Citations
149	Parallel metaheuristics: recent advances and new trends. *International Transactions in Operational Research*, **2013**, 20, 1-48	2.9	174
148	A survey on parallel ant colony optimization. *Applied Soft Computing Journal*, **2011**, 11, 5181-5197	7.5	144
147	An overview of metaheuristics: accurate and efficient methods for optimisation. *International Journal of Metaheuristics*, **2014**, 3, 320	0.8	140
146	Energy-Aware Scheduling on Multicore Heterogeneous Grid Computing Systems. *Journal of Grid Computing*, **2013**, 11, 653-680	4.2	60
145	A parallel micro evolutionary algorithm for heterogeneous computing and grid scheduling. *Applied Soft Computing Journal*, **2012**, 12, 626-639	7.5	43
144	Fast energy-aware OLSR routing in VANETs by means of a parallel evolutionary algorithm. *Cluster Computing*, **2013**, 16, 435-450	2.1	40
143	Granular physics in low-gravity environments using discrete element method. *Monthly Notices of the Royal Astronomical Society*, **2012**, 420, 3368-3380	4.3	40
142	Heterogeneous computing scheduling with evolutionary algorithms. *Soft Computing*, **2010**, 15, 685-701	3.5	30
141	Online Bi-Objective Scheduling for IaaS Clouds Ensuring Quality of Service. *Journal of Grid Computing*, **2016**, 14, 5-22	4.2	30
140	Cluster-UY: Collaborative Scientific High Performance Computing in Uruguay. *Communications in Computer and Information Science*, **2019**, 188-202	0.3	26
139	Efficient Heuristics for Profit Optimization of Virtual Cloud Brokers. *IEEE Computational Intelligence Magazine*, **2015**, 10, 33-43	5.6	23
138	A distributed platform for big data analysis in smart cities: combining Intelligent Transportation Systems and socioeconomic data for Montevideo, Uruguay. *EAI Endorsed Transactions on Smart Cities*, **2017**, 2, 153478	1	21
137	Comparison of Multiobjective Evolutionary Algorithms for Prioritized Urban Waste Collection in Montevideo, Uruguay. *Electronic Notes in Discrete Mathematics*, **2018**, 69, 93-100	0.3	20
136	Exact and heuristic approaches for multi-objective garbage accumulation points location in real scenarios. *Waste Management*, **2020**, 105, 467-481	8.6	19
135	A hierarchical approach for energy-efficient scheduling of large workloads in multicore distributed systems. *Sustainable Computing: Informatics and Systems*, **2014**, 4, 252-261	3	19
134	A parallel local search in CPU/GPU for scheduling independent tasks on large heterogeneous computing systems. *Journal of Supercomputing*, **2015**, 71, 648-672	2.5	18
133	Multiobjective evolutionary optimization of traffic flow and pollution in Montevideo, Uruguay. *Applied Soft Computing Journal*, **2018**, 70, 472-485	7.5	18

132	Analysis of Mobility Patterns for Public Transportation and Bus Stops Relocation. *Programming and Computer Software*, **2018**, 44, 508-525	0.8	16
131	Infrastructure Deployment in Vehicular Communication Networks Using a Parallel Multiobjective Evolutionary Algorithm. *International Journal of Intelligent Systems*, **2017**, 32, 801-829	8.4	15
130	Urban Mobility Data Analysis for Public Transportation Systems: A Case Study in Montevideo, Uruguay. *Applied Sciences (Switzerland)*, **2020**, 10, 5400	2.6	15
129	Multiobjective evolutionary algorithms for energy and service level scheduling in a federation of distributed datacenters. *International Transactions in Operational Research*, **2017**, 24, 199-228	2.9	14
128	Holistic multiobjective planning of datacenters powered by renewable energy. *Cluster Computing*, **2015**, 18, 1379-1397	2.1	14
127	Analysis of Sustainable Public Transportation and Mobility Recommendations for Montevideo and Parque Rod Neighborhood. *Smart Cities*, **2020**, 3, 479-510	3.3	13
126	Smart home energy planning using IoT and the cloud **2017**,		13
125	Traffic lights synchronization for Bus Rapid Transit using a parallel evolutionary algorithm. *International Journal of Transportation Science and Technology*, **2019**, 8, 53-67	3.3	13
124	Energy-aware online scheduling: Ensuring quality of service for IaaS clouds **2014**,		12
123	Soft computing methods for multiobjective location of garbage accumulation points in smart cities. *Annals of Mathematics and Artificial Intelligence*, **2020**, 88, 105-131	0.8	12
122	Experimental Analysis of Secret Sharing Schemes for Cloud Storage Based on RNS. *Communications in Computer and Information Science*, **2018**, 370-383	0.3	11
121	SCHEDULING IN HETEROGENEOUS COMPUTING AND GRID ENVIRONMENTS USING A PARALLEL CHC EVOLUTIONARY ALGORITHM. *Computational Intelligence*, **2012**, 28, 131-155	2.5	11
120	Multiobjective grid scheduling using a domain decomposition based parallel micro evolutionary algorithm. *International Journal of Grid and Utility Computing*, **2013**, 4, 70	1.1	11
119	Characterization, modeling and scheduling of power consumption of scientific computing applications in multicores. *Cluster Computing*, **2019**, 22, 839-859	2.1	10
118	Operating cost and quality of service optimization for multi-vehicle-type timetabling for urban bus systems. *Journal of Parallel and Distributed Computing*, **2019**, 133, 272-285	4.4	10
117	Metaheuristic approaches for IP/MPLS network design. *International Transactions in Operational Research*, **2018**, 25, 599-625	2.9	10
116	Parallel multiobjective evolutionary algorithms for batch scheduling in heterogeneous computing and grid systems. *Computational Optimization and Applications*, **2013**, 55, 515-544	1.4	9
115	An empirical time analysis of evolutionary algorithms as C programs. *Software - Practice and Experience*, **2015**, 45, 111-142	2.5	8

114	High-Performance Computing of Self-Gravity for Small Solar System Bodies. *Computer*, **2014**, 47, 34-39	1.6	8
113	A Parallel Hybrid Evolutionary Algorithm for the Optimization of Broker Virtual Machines Subletting in Cloud Systems **2013**,		8
112	MAPREDUCE CHALLENGES ON PERVASIVE GRIDS. *Journal of Computer Science*, **2014**, 10, 2194-2210	0.5	8
111	Controlling datacenter power consumption while maintaining temperature and QoS levels **2014**,		8
110	PER-MARE: Adaptive Deployment of MapReduce over Pervasive Grids **2013**,		8
109	Non-intrusive energy disaggregation by detecting similarities in consumption patterns. *Revista Facultad De Ingenierí*,	1	8
108	An integrated platform for smart energy management: the CC-SEM project. *Revista Facultad De Ingenierí*, **2019**,	1	8
107	Computational Intelligence for Locating Garbage Accumulation Points in Urban Scenarios. *Lecture Notes in Computer Science*, **2019**, 411-426	0.9	8
106	Evolutionary algorithms applied to reliable communication network design. *Engineering Optimization*, **2007**, 39, 831-855	2	7
105	Household Energy Disaggregation Based on Pattern Consumption Similarities. *Communications in Computer and Information Science*, **2020**, 54-69	0.3	7
104	Scheduling Energy Efficient Data Centers Using Renewable Energy. *Electronics (Switzerland)*, **2016**, 5, 71	2.6	7
103	Bi-objective online scheduling with quality of service for IaaS clouds **2014**,		6
102	Evolutionary power-aware routing in VANETs using Monte-Carlo simulation **2012**,		6
101	Short Term Load Forecasting of Industrial Electricity Using Machine Learning. *Communications in Computer and Information Science*, **2020**, 146-161	0.3	6
100	An Empirical Study of the Robustness of Energy-Aware Schedulers for High Performance Computing Systems under Uncertainty. *Communications in Computer and Information Science*, **2014**, 143-157	0.3	6
99	Distributed Big Data Analysis for Mobility Estimation in Intelligent Transportation Systems. *Communications in Computer and Information Science*, **2017**, 146-160	0.3	5
98	Electricity demand forecasting in industrial and residential facilities using ensemble machine learning. *Revista Facultad De Ingenierí*,	1	5
97	Parallel implementations of the MinMin heterogeneous computing scheduler in GPU. *CLEI Electronic Journal*, **2012**, 15,	0.6	5

96	Parallel/Distributed Generative Adversarial Neural Networks for Data Augmentation of COVID-19 Training Images. *Communications in Computer and Information Science*, **2021**, 162-177	0.3	5
95	Exact and Evolutionary Algorithms for Synchronization of Public Transportation Timetables Considering Extended Transfer Zones. *Applied Sciences (Switzerland)*, **2021**, 11, 7138	2.6	5
94	**2015**,		4
93	Evolutionary Approach for Bus Synchronization. *Communications in Computer and Information Science*, **2020**, 320-336	0.3	4
92	Multiobjective Vehicle-type Scheduling in Urban Public Transport **2017**,		4
91	Multiobjective scheduling of green-powered datacenters considering QoS and budget objectives **2015**,		4
90	Solving Very Large Optimization Problems (Up to One Billion Variables) with a Parallel Evolutionary Algorithm in CPU and GPU **2012**,		4
89	Time analysis of standard evolutionary algorithms as software programs **2011**,		4
88	Optimizing household energy planning in smart cities: A multiobjective approach. *Revista Facultad De Ingenierí*,	1	4
87	Urban Data Analysis for the Public Transportation System of Montevideo, Uruguay. *Communications in Computer and Information Science*, **2020**, 199-214	0.3	4
86	Multiobjective Household Energy Planning Using Evolutionary Algorithms. *Communications in Computer and Information Science*, **2020**, 269-284	0.3	4
85	Computational Intelligence for Evaluating the Air Quality in the Center of Madrid, Spain. *Communications in Computer and Information Science*, **2020**, 115-127	0.3	4
84	Sustainable Mobility in the Public Transportation of Montevideo, Uruguay. *Communications in Computer and Information Science*, **2020**, 93-108	0.3	4
83	Efficient parallel evolutionary algorithms for deadline-constrained scheduling in project management. *International Journal of Innovative Computing and Applications*, **2016**, 7, 34	0.4	4
82	Multiobjective evolutionary algorithms for the taxi sharing problem. *International Journal of Metaheuristics*, **2016**, 5, 67	0.8	3
81	Multiobjective Optimization of Greenhouse Gas Emissions Enhancing the Quality of Service for Urban Public Transport Timetabling **2017**,		3
80	Smart placement of RSU for vehicular networks using multiobjective evolutionary algorithms **2015**,		3
79	An Efficient Stochastic Local Search for Heterogeneous Computing Scheduling **2012**,		3

78	A Parallel Multi-objective Local Search for AEDB Protocol Tuning **2013**,		3
77	Solving a Ring Star Problem Generalization **2008**,		3
76	ECD-UY, detailed household electricity consumption dataset of Uruguay.. *Scientific Data*, **2022**, 9, 21	8.2	3
75	Waste bins location problem: A review of recent advances in the storage stage of the Municipal Solid Waste reverse logistic chain. *Journal of Cleaner Production*, **2022**, 342, 130793	10.3	3
74	The Latin American supercomputing ecosystem for science. *Communications of the ACM*, **2020**, 63, 66-71	2.5	3
73	Using Metaheuristics as Soft Computing Techniques for Efficient Optimization **2015**, 7390-7399		3
72	Parallel Computing for Processing Data from Intelligent Transportation Systems. *Communications in Computer and Information Science*, **2019**, 266-281	0.3	3
71	A Thermal Discomfort Index for Demand Response Control in Residential Water Heaters. *Applied Sciences (Switzerland)*, **2021**, 11, 10048	2.6	3
70	A Parallel Multithreading Algorithm for Self-gravity Calculation on Agglomerates. *Communications in Computer and Information Science*, **2016**, 311-325	0.3	3
69	Active Safety System for Urban Environments with Detecting Harmful Pedestrian Movement Patterns Using Computational Intelligence. *Applied Sciences (Switzerland)*, **2020**, 10, 9021	2.6	3
68	Simulation and evaluation of multicriteria planning heuristics for demand response in datacenters. *Simulation*,003754972110200	1.2	3
67	Municipal Solid Waste Management in Smart Cities: Facility Location of Community Bins. *Communications in Computer and Information Science*, **2019**, 102-115	0.3	3
66	Cloud Computing for Smart Energy Management (CC-SEM Project). *Communications in Computer and Information Science*, **2019**, 116-131	0.3	3
65	A bi-objective integer programming model for locating garbage accumulation points: a case study. *Revista Facultad De Ingeniería*, **2019**, 70-81	1	3
64	Computational Intelligence for Analysis of Traffic Data. *Communications in Computer and Information Science*, **2021**, 167-182	0.3	3
63	An explicit evolutionary approach for multiobjective energy consumption planning considering user preferences in smart homes. *International Journal of Industrial Engineering Computations*, **2021**, 12, 365-380	1.7	3
62	Virtual Savant for the Heterogeneous Computing Scheduling Problem **2018**,		3
61	Performance Improvements of a Parallel Multithreading Self-gravity Algorithm. *Communications in Computer and Information Science*, **2018**, 291-306	0.3	2

60	Online taxi sharing optimization using evolutionary algorithms **2014**,		2
59	Metaheuristics for the Virtual Machine Mapping Problem in Clouds. *Informatica*, **2015**, 26, 111-134	2.9	2
58	Demand Response and Ancillary Services for Supercomputing and Datacenters. *Communications in Computer and Information Science*, **2019**, 203-217	0.3	2
57	Designing a Backbone Trunk for the Public Transportation Network in Montevideo, Uruguay. *Communications in Computer and Information Science*, **2020**, 228-243	0.3	2
56	Optimizing the Profit and QoS of Virtual Brokers in the Cloud. *Computer Communications and Networks*, **2017**, 277-300	0.5	2
55	Penalty Scheduling Policy Applying User Estimates and Aging for Supercomputing Centers. *Communications in Computer and Information Science*, **2017**, 49-60	0.3	2
54	Power Consumption Characterization of Synthetic Benchmarks in Multicores. *Communications in Computer and Information Science*, **2018**, 21-37	0.3	2
53	Multiobjective Energy-Aware Workflow Scheduling in Distributed Datacenters. *Communications in Computer and Information Science*, **2016**, 79-93	0.3	2
52	Analysis of Residential Electricity Consumption by Areas in Uruguay. *Communications in Computer and Information Science*, **2021**, 42-57	0.3	2
51	Virtual Savant as a generic learning approach applied to the basic independent Next Release Problem. *Applied Soft Computing Journal*, **2021**, 108, 107374	7.5	2
50	Travel Time Estimation in Public Transportation Using Bus Location Data. *Communications in Computer and Information Science*, **2022**, 192-206	0.3	2
49	Exact Approach for Electric Vehicle Charging Infrastructure Location: A Real Case Study in M□aga, Spain. *Communications in Computer and Information Science*, **2022**, 42-57	0.3	2
48	Learning to optimize timetables for efficient transfers in public transportation systems. *Applied Soft Computing Journal*, **2022**, 119, 108616	7.5	2
47	Computational Intelligence for Detecting Pedestrian Movement Patterns. *Communications in Computer and Information Science*, **2019**, 148-163	0.3	1
46	Support Vector Machine Acceleration for Intel Xeon Phi Manycore Processors. *Communications in Computer and Information Science*, **2018**, 277-290	0.3	1
45	Evolutionary algorithms for affinity scheduling heuristics in heterogeneous computing systems **2014**,		1
44	A Parallel Evolutionary Algorithm for Multilayered Robust Network Design **2012**,		1
43	Multiobjective Scheduling on Distributed Heterogeneous Computing and Grid Environments Using a Parallel Micro-CHC Evolutionary Algorithm **2011**,		1

42	A* algorithm for GIS-based pipeline route selection in Veracruz, Mexico **2020**,		1
41	Nature-Inspired Informatics for Telecommunication Network Design323-371		1
40	Generation and Classification of Energy Load Curves Using a Distributed MapReduce Approach. *Communications in Computer and Information Science*, **2019**, 3-17	0.3	1
39	Scheduling Algorithms for Distributed Cosmic Ray Detection Using Apache Mesos. *Communications in Computer and Information Science*, **2017**, 359-373	0.3	1
38	Exploring the Accuracy of a Parallel Cooperative Model for Trajectory-Based Metaheuristics. *Lecture Notes in Computer Science*, **2012**, 319-326	0.9	1
37	Efficient Fluorescence Microscopy Analysis over a Volunteer Grid/Cloud Infrastructure. *Communications in Computer and Information Science*, **2014**, 113-127	0.3	1
36	Multiobjective Energy-Aware Datacenter Planning Accounting for Power Consumption Profiles. *Communications in Computer and Information Science*, **2014**, 128-142	0.3	1
35	MBSPDiscover: An Automatic Benchmark for MultiBSP Performance Analysis. *Communications in Computer and Information Science*, **2014**, 158-172	0.3	1
34	Parallel virtual savant for the heterogeneous computing scheduling problem. *Journal of Computational Science*, **2020**, 39, 101048	3.4	1
33	Parallel/distributed implementation of cellular training for generative adversarial neural networks **2020**,		1
32	Instance-Based Learning Following Physician Reasoning for Assistance during Medical Consultation. *Applied Sciences (Switzerland)*, **2021**, 11, 5886	2.6	1
31	Demand Response Control in Electric Water Heaters: Evaluation of Impact on Thermal Comfort. *Communications in Computer and Information Science*, **2021**, 74-89	0.3	1
30	Computational Intelligence for Characterization and Disaggregation of Residential Electricity Consumption. *Communications in Computer and Information Science*, **2021**, 58-73	0.3	1
29	A Simulation-Optimization Approach for the Household Energy Planning Problem Considering Uncertainty in Users Preferences. *Communications in Computer and Information Science*, **2021**, 253-267	0.3	1
28	A Case Study of Smart Industry in Uruguay: Grain Production Facility Optimization. *Communications in Computer and Information Science*, **2022**, 101-115	0.3	1
27	A Practical Approach for Sustainable Transit Oriented Development in Montevideo, Uruguay. *Communications in Computer and Information Science*, **2022**, 256-270	0.3	1
26	Parallel evolutionary approaches for game playing and verification using Intel Xeon Phi. *Journal of Parallel and Distributed Computing*, **2019**, 133, 258-271	4.4	0
25	Parallel/Distributed Intelligent Hyperparameters Search for Generative Artificial Neural Networks. *Lecture Notes in Computer Science*, **2021**, 297-313	0.9	0

24	Multi-objective Optimization of Vehicle Routing with Environmental Penalty. *Communications in Computer and Information Science*, **2019**, 147-162	0.3	0
23	A Parallel Multilevel Data Decomposition Algorithm for Orientation Estimation of Unmanned Aerial Vehicles. *Communications in Computer and Information Science*, **2014**, 206-220	0.3	0
22	Energy Aware Multiobjective Scheduling in a Federation of Heterogeneous Datacenters. *Communications in Computer and Information Science*, **2018**, 337-352	0.3	
21	A Comparative Analysis of Accurate and Robust Bi-objective Scheduling Heuristics for Datacenters. *Communications in Computer and Information Science*, **2018**, 223-235	0.3	
20	Parallel Metaheuristics in Telecommunications **2005**, 495-515		
19	Machine Learning for Generic Energy Models of High Performance Computing Resources. *Lecture Notes in Computer Science*, **2021**, 314-330	0.9	
18	Bio-inspired negotiation approach for smart-grid colocation datacenter operation.. *Mathematical Biosciences and Engineering*, **2022**, 19, 2403-2423	2.1	
17	Efficient Optimization Using Metaheuristics **2018**, 7693-7703		
16	Parallel Implementations of Self-gravity Calculation for Small Astronomical Bodies on Xeon Phi. *Communications in Computer and Information Science*, **2019**, 157-173	0.3	
15	Comparison of Tree Based Strategies for Parallel Simulation of Self-gravity in Agglomerates. *Communications in Computer and Information Science*, **2019**, 141-156	0.3	
14	Efficient Optimization Using Metaheuristics. *Advances in Computer and Electrical Engineering Book Series*, **2019**, 1616-1628	0.3	
13	Cloud Computing for Fluorescence Correlation Spectroscopy Simulations. *Communications in Computer and Information Science*, **2015**, 34-49	0.3	
12	Communication-Aware Affinity Scheduling Heuristics in Multicore Systems. *Communications in Computer and Information Science*, **2017**, 33-48	0.3	
11	Evaluation of a Master-Slave Parallel Evolutionary Algorithm Applied to Artificial Intelligence for Games in the Xeon-Phi Many-Core Platform. *Communications in Computer and Information Science*, **2017**, 161-176	0.3	
10	High-performance computing simulations of self-gravity in astronomical agglomerates. *Simulation*,00375497	1.2	72199876
9	Public Transportation and Accessibility to Education Centers in Maldonado, Uruguay. *Communications in Computer and Information Science*, **2021**, 123-138	0.3	
8	Automatic Generation of Interrelated Organisms on Virtual Environments. *Lecture Notes in Computer Science*, **2021**, 119-128	0.9	
7	Exact and Metaheuristic Approach for Bus Timetable Synchronization to Maximize Transfers. *Communications in Computer and Information Science*, **2021**, 183-198	0.3	

6	High Performance Computing Simulations of Granular Media in Silos. *Communications in Computer and Information Science*, **2021**, 34-48	0.3
5	Electricity Demand Forecasting Using Computational Intelligence and High Performance Computing. *Communications in Computer and Information Science*, **2021**, 146-161	0.3
4	Towards a Sustainable Mobility Plan for Engineering Faculty, Universidad de la República, Uruguay. *Communications in Computer and Information Science*, **2021**, 199-215	0.3
3	Energy-Aware Smart Home Planning: A Real Case Study in Montevideo, Uruguay. *Communications in Computer and Information Science*, **2022**, 146-161	0.3
2	A Machine Learning Approach for Detecting Traffic Incidents from Video Cameras. *Communications in Computer and Information Science*, **2022**, 162-177	0.3
1	Open-Source Big Data Platform for Real-Time Geolocation in Smart Cities. *Communications in Computer and Information Science*, **2022**, 207-222	0.3